

TOP SECRET

TOP SECRET 011829Z JUL 69 CITE [REDACTED] 6597

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1. THE FOLLOWING MATERIALS WERE RECEIVED BY [REDACTED] FROM [REDACTED] REVS 009 AND 091 ONE DUPE NEGATIVE AND ONE DUPE POSITIVE, PARTS 2 AND 3 ONE DUPE NEGATIVE AND ONE DUPE POSITIVE (REVS

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52-159)

2. [REDACTED] DUPE NEGATIVES AND POSITIVES AS WELL AS THE ORIGINAL NEGATIVE WERE USED FOR COMPARISON.

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3. THE FOLLOWING COMPARATIVE QUALITY ANALYSIS WAS MADE TO DETERMINE THE RELATIVE USEFULNESS OF THE [REDACTED] PRODUCT FROM A USERS STANDPOINT.

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A. RELATIVE RESOLUTION OF THE TWO PRODUCTS.

(1) OBJECTIVE: THE CORN TARGETS IMAGED ON THE TWO PARTS WERE READ BY [REDACTED] ANALYSTS. THE READINGS FROM THE [REDACTED] DUPE POSITIVES WERE THEN COMPARED.

(2) SUBJECTIVE: THE RELATIVE SHARPNESS OF THE IMAGE PRODUCED FROM THE DUPE NEGATIVE POSITIVE PRINTS

PAGE 2 [REDACTED] 6597 TOP SECRET
AS WELL AS THE SECOND GENERATION DUPE POSITIVES WERE COMPARED.

B. IMAGE QUALITY: IMAGE PARAMETERS SUCH AS GRAININESS, DENSITY AND CONTRAST OF THE VARIOUS MATERIALS WERE COMPARED.

(1) THIRTY TIMES MAGNIFICATION PAPER PRINTS WERE MADE FROM THE [REDACTED] DUPE NEGATIVES AS WELL AS FROM THE ORIGINAL OF FOUR RANDOMLY SELECTED FRAMES (2 EACH FROM EACH OPERATIONAL REV).

(2) THE SAME AREAS AS NUMBER ONE WERE CHIPPED FROM THE [REDACTED] DUPE POSITIVES AND COMPARED.

NOTE: BOTH REVS AS RECEIVED FROM [REDACTED] WERE DUAL PRINTED LIGHT AND DARK. THE SAME REVS FROM [REDACTED] WERE SINGLE LEVEL PRINTED ONLY.

4. CONCLUSIONS:

A. RESOLUTION

(1) NO SIGNIFICANT RESOLUTION DIFFERENCE WAS FOUND BETWEEN THE [REDACTED] SECOND GENERATION DUPE POSITIVES. IT SHOULD BE NOTED THAT DIFFERENCES COULD BE PRESENT BUT USING THE SIXTH ROOT OF TWO CORN TARGETS FOR COMPARISON, NONE WAS EVIDENT. BOTH DUPLICATES

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INDICATED A SIMILAR LOSS OF HIGH FREQUENCY INFORMATION RELATIVE TO THE ORIGINAL NEGATIVE.

(2) SUBTLE RANDOM DIFFERENCES APPEAR TO EXIST BETWEEN INDIVIDUAL COPIES; HOWEVER, THEY APPEAR TO BE

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SUBJECT-CONTRAST DEPENDENT, NOT NECESSARILY COPY DEPENDENT.

B. IMAGE QUALITY:

(1) THE GRAININESS OF THE TWO MATERIALS APPEARS TO BE NEARLY EQUAL, WITH BOTH EXHIBITING A MORE PRONOUNCED GRAIN STRUCTURE THAN THE ORIGINAL.

(2) THE OVERALL CONTRAST OF THE PAPER PRINTS APPEARS COMPARABLE IN BOTH CASES TO THE PAPER PRINT FROM THE ORIGINAL. HOWEVER THE [REDACTED] DUPE NEGATIVE DOES CONTAIN SIGNIFICANTLY HIGHER SHADOW CONTRAST, I.E., SHADOW DETAIL, THAN THE [REDACTED] DUPE NEGATIVE AND THE [REDACTED] DUPE NEGATIVE COMPARES FAVORABLY TO THE ORIGINAL NEGATIVE. A COMPARISON OF THE NEGATIVE MATERIALS THEMSELVES CONFIRMS THIS CONCLUSION. AS FOR THE SECOND GENERATION DUPLICATE POSITIVES, THE ONLY SIGNIFICANT DIFFERENCE FOUND BETWEEN THE TWO COPIES IS THAT OF PRINT CONTRAST. THE [REDACTED] DUPE POSITIVES GENERALLY EXHIBITS A SLIGHTLY LOWER OVERALL CONTRAST. THIS

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PAGE 4 [REDACTED] 6597 TO P S E C R E T
CAN BE EXPECTED, SINCE ONE COPY WAS DUAL PRINTED LIGHT AND DARK AND ONE COPY WAS PRINTED AT A SINGLE LEVEL. IT IS FELT THAT, GIVEN THIS LIMITED SAMPLE OF ONLY TWO REVS, SUCH A DIFFERENCE (A SLIGHTLY LOWER DUPE CONTRAST) WOULD PROVIDE MINIMAL DISCOMFORT TO THE PHOTO-INTERPRETER EXCEPT UNDER TARGET EXTREMES OF ATMOSPHERICS AND SOLAR ELEVATION.

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3. THE OVERALL QUALITY OF THE [REDACTED] PRODUCTS WERE FOUND TO BE QUITE COMPARABLE AND EXCEPT FOR THE TWO NOTED DIFFERENCES (THE LOWER SHADOW INFORMATION OF THE [REDACTED] DUPLICATE NEGATIVE AND THE APPARENT LOWER DUPLICATE POSITIVE CONTRAST OF THE [REDACTED] SECOND GENERATION POSITIVE) THE TWO PRODUCTS CAN BE CONSIDERED TO BE EQUAL.

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1 Jul 69 21 16z

OUT 67957

R 012050Z
FM NPIC
TO AFSSO SAMSO
ZEM

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CITE NPIC 6598.

SAMSO/PWW ATIN:

REF: AFSSO-6/SMFAV/JUNE 69

THE FOLLOWING IS THE DATA REQUESTED ON PERM AND YEDROVO ICBM
SITES.

PERM 84
PERM 85
PERM 86
PERM 87
PERM 88
YEDROVO 109
GP-1

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COORDS.

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